

Communicable Disease UPDATE

Newsletter of the Bureau of Communicable Disease Control, Massachusetts Department of Public Health

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XDR TB

Recent emergence of new strains of extensively drug resistant tuberculosis or XDR TB (defined as tuberculosis that is multidrug resistant (MDR) *i.e.* resistant to isoniazid (INH) and rifampicin (Rif), two of our best first-line drugs, and also resistant to a fluoroquinolone antibiotic and at least one of 3 injectable second-line TB drugs -capreomycin, kanamycin or amikacin), has drawn the attention of public health authorities worldwide.¹ More dangerous than the MDR TB that characterized outbreaks in the US in the 1980's and 90's, XDR TB has been seen on all continents, including North America, and has been associated with unusually high mortality. These strains have been virtually untreatable in some settings. In a recent report, 52 of 53 persons with XDR TB in KwaZulu-Natal, South Africa, died, with a median time to death (from the time of the first positive culture result) of 16 days. In November, 2006, the World Health Organization assembled a Global Task Force in Geneva to evaluate the scope of the problem and to develop an action plan for controlling this potential pandemic.

In the US, 49 cases of XDR TB were reported between 1993 and 2006, approximately 3% of the 2,927 MDR TB cases reported during that period.² These cases were reported from 9 states, with New York City (19 cases) and California (11 cases) reporting the greatest number. Cases have been reported by New York State (8), New Jersey (3), Rhode Island., Virginia, Ohio, and Michigan (1 each). Seventeen of these were reported since 2000, representing 4.5% of MDR TB cases. Compared with MDR TB, patients with XDR TB were more likely to die or experience treatment failure, *especially if HIV co-infected*. At least 2/17 (12%) of these cases died during treatment and 9 outcomes were unknown at the time of the report. In Massachusetts, 259 cases of tuberculosis were reported in 2006. Among the 197 cases with culture data (77% of the total), there were 4 cases of MDR TB (2%) and no cases of XDR TB.

However, data reported to the national surveillance system likely substantially underestimate the extent of the problem. Of the 202,436 culture-confirmed US TB cases (approximately 80% of total cases, 1993-2006), 190,312 (94%) had drug susceptibility testing (DST) performed for at least INH and Rif on an initial sample isolate. Only 1,665 (57%) had DST for at least 1 fluoroquinolone and 1 injectable 2nd-line drug, and only 22% underwent the complete panel of testing for 2nd line drugs included in the case definition for XDR TB. Furthermore, since only initial drug susceptibility data are reported, drug resistance that develops during treatment is not captured.

Contributing causes of drug resistance, for both MDR and XDR TB include: improper prescription and administration of medications, including fluoroquinolone antibiotics; and an inability to monitor to ensure that TB drugs are taken as prescribed.

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Massachusetts Department of Public Health Adopts New Health & Homeland Alert Network Application

The Massachusetts Department of Public Health (MDPH) completed the transition to a new Health & Homeland Alert Network (HHAN) application on May 1, 2007 under the auspices of the Office of Integrated Surveillance and Informatics Services (ISIS) in the Bureau of Communicable Disease Control (BCDC). The new HHAN platform, or HHAN 2.0, is a custom built application developed in partnership with the Children's Hospital Informatics Program (CHIP). The HHAN 2.0 provides many advantages.

Since the HHAN's inception in 2001, its mission expanded dramatically from the original purpose, which was to deliver emergent public health information quickly and efficiently to the MDPH's public health partners (*i.e.*, boards of health, hospitals, and community health centers). As public health partners, including local health, MEMA, Department of Fire Services, adopted the HHAN as their alerting system, it became crowded. The single web portal for all user communities provided as much "noise" as useful information for the average user. The User Directory was so large that it became unwieldy. The Document Library was a taxonomical labyrinth. "Simplify" was a message heard and that became the goal of identifying a replacement.

In January 2006, MDPH decided to develop a custom solution to meet HHAN requirements. The decision was based on several factors. The commercially available solutions did not meet MDPH needs. By developing a custom solution MDPH could ensure that the end result would be an intuitive and easy to use product, thus eliminating the greatest barrier to adoption. Lastly, by creating our own application, MDPH eliminated the license fees that were a financial barrier to widespread enrollment. ISIS proceeded with the development of the custom solution, HHAN 2.0.

HHAN 2.0 has many improvements that enhance overall effectiveness. Many are small improvements that have disproportionately large effects; for example, the ability for users to reset their own passwords. Another improvement is that alert confirmations may now be tracked by organizations instead of individual users.

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Epidemiology

Maintaining Confidentiality and Privacy of Communicable Disease Reports: How MDPH Protects Surveillance Information

The MDPH receives over 100,000 reports of communicable diseases each year. The reports are submitted by health care providers, hospitals, clinical laboratories and local health departments. Approximately eighty infectious diseases or conditions are "reportable" in Massachusetts. These include STD's and HIV/AIDS, food-borne diseases, bioterrorist agents, arboviruses, vaccine-preventable diseases and zoonotic diseases, to name a few.

A trust is established and must be maintained between the reporting entities and the MDPH that the confidentiality and privacy of surveillance information will be guarded to the maximum extent. Standards are set by Massachusetts General Laws and regulations, the Massachusetts' Fair Information Practices Act, and by the policies of the department. In some cases, for example with HIV/AIDS data, the maintenance of certain confidentiality and privacy standards is also a requirement to receive federal funding from the Centers for Disease Control and Prevention.

A variety of measures are in place to protect surveillance data. These measures include physical measures and policies to prevent unauthorized access to information and/or release of data by a staff member.

The Bureau of Communicable Disease Control also adheres to specific policies surrounding the release of aggregate data to protect patient confidentiality. Policies and procedures have been set forth for all staff working with custody of or access to confidential data to receive formal and training on the requirements and procedures of the Privacy Rule of the Health Insurance Portability and Accountability Act (HIPAA). As the MDPH moves forward with the development of Internet-based systems for disease reporting, maintaining confidentiality and privacy will continue to be a top priority.

The MDPH acknowledges and appreciates the central role of health care providers, laboratories, and local health departments in disease reporting, prevention, and control.

Additional information on MDPH disease reporting and privacy matters can be found at <http://www.mass.gov/dph/cdc/epii/reportable/reportable.htm> and <http://www.mass.gov/dph/comm/hipaa/hipaa.htm>.

If you have any questions, please contact Gillian Haney, MPH, at Gillian.Haney@state.ma.us.

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Current and past issues of CD Update are available online at:
<http://www.mass.gov/dph/cdc/update/comnews.htm>

Contact Jacqueline Dooley at jacqueline.dooley@state.ma.us or (617) 983-6559 to have PDF versions emailed to you.

Lyme Disease Surveillance Improvements

Lyme disease is the most commonly reported vector-borne illness in Massachusetts. In 2005, Massachusetts had a Lyme disease incidence rate of 36 cases per 100,000 residents, which is well above the national rate of 8 cases per 100,000. Lyme disease surveillance data reported to the Massachusetts Department of Public Health (MDPH) allows for the accurate monitoring of disease trends, as well as the identification of high-risk populations and geographic areas of increased concern.

Lyme disease reporting procedures have been simplified. The changes, which are summarized below, will improve the accuracy of data and enable MDPH to supply health care providers and local health departments with more timely information on Lyme disease. Ultimately, this will enhance efforts to prevent Lyme disease.

The Lyme disease case report form is now only one page and has been formatted to allow MDPH to electronically scan the form, forgoing manual data entry. There is no change in the information that is requested. We are encouraging physicians to use this new form to report any case of Lyme disease they diagnose. This includes Lyme disease cases with erythema migrans for whom no laboratory test was ordered. Completed forms should be faxed to MDPH at (617) 983-6813.

Local health departments are no longer being asked to follow up on all Lyme disease positive laboratory results. If MDPH receives a positive Lyme disease laboratory result on an individual and we have no completed case report form on file, the physician will receive a letter and case report form directly from MDPH. The letter will request that they complete the case report form as soon as possible and return it to MDPH. MDPH may request assistance from the local health department if we have difficulty communicating with the physician. To receive Lyme disease case data, local health departments can contact the MDPH, Bureau of Communicable Disease Control, Office of Integrated Surveillance and Informatics Services at 617-983- 6801.

MPDH TICKBORNE DISEASE WEBSITE

www.mass.gov/dph/cdc/epii/lyme/lymehp.htm

New Health & Homeland Alert Network Application

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MDPH's priority is to enroll HHAN 2.0 users from every board of health, hospital, and community health center in the Commonwealth. To request a HHAN account please email alert.network@state.ma.us and include your name, work email address, and the official duties that necessitate HHAN membership. Any questions or comments about the HHAN program or its technical solution should be sent to alert.network@state.ma.us or call Scott Kenfield, HHAN Coordinator at 617-983-6801.

Immunization

Revised Regulations Pertaining to Meningococcal Vaccination and Information

Recent legislation changed the scope of the school immunization requirements for meningococcal vaccination (M.G.L. c.76, s.15D).

In response to this new statute, two sets of regulations were amended:

- 1) Meningococcal Vaccine Requirements for Students at Secondary and Postsecondary Schools that Provide or License Housing (105 CMR 220.700); and
- 2) the Dissemination of Information about Meningococcal Disease and Vaccine (105 CMR 221.300). These amendments make the Massachusetts Department of Public Health (MDPH) regulations consistent with the statute and are summarized in the table below.

Summary of Changes to 105 CMR 220.700 and 105 CMR 221.300

105 CMR 220.700 is amended to now only apply to newly enrolled full-time residential students at secondary and postsecondary schools. Residential students are those (newly enrolled full-time) students who will be living in a dormitory or comparable congregate living arrangement licensed or approved by the secondary school or postsecondary institution. (The amended regulation no longer applies to non-residential or part-time students at these institutions.)

The language related to vaccine type has been changed to reflect the latest recommendation from the Advisory Committee on Immunization Practices (ACIP) for the 2 different formulations of meningococcal vaccine. Affected students must provide written documentation that they have received 1 dose of meningococcal polysaccharide vaccine (MPSV4) within the last 5 years [or a dose of meningococcal conjugate vaccine (MCV4) at anytime in the past]. As MCV4 is expected to provide better, longer-lasting protection, there is currently no recommendation for a booster dose of this vaccine.

Affected students still need to receive MDPH's *Meningococcal Information and Waiver Form*. This form has been revised to reflect the changes in the regulatory language and to include an option for students to indicate they were not able to obtain vaccine due to a shortage.

Students may now register without a certificate of immunization, provided that proof of the required meningococcal immunization is obtained within 30 days of registration. (Previously, the certificate of immunization had to be presented two weeks prior to the beginning of classes.)

105 CMR 221.300 has been amended to apply to non-residential students no longer covered by 105 CMR 220.700. These students need to receive the appropriate meningococcal information sheet depending upon whether they attend a secondary school or post-secondary institution. Meningococcal information sheets are available for use in specific settings, such as secondary schools, post-secondary institutions, day cares and youth camps.

The changes will become effective beginning in the 2007-2008 school year.

More detailed information regarding these regulations, as well as all the meningococcal information sheets, is available at the MDPH website <http://www.mass.gov/dph> or by contacting MDPH's Division of Epidemiology and Immunization at (617) 983-6800 or (888) 658-2850.

Vaccine Management Business Improvement Project (VMBIP)

Vaccine management and accountability needs have grown dramatically since the inception of the Vaccines for Children (VFC) program in 1994. However, many vaccine management and accountability processes are still conducted using methods and technology established more than a decade ago. Consisting of a patchwork of stand-alone computer applications and paper-based systems operated by the Centers for Disease Control and Prevention (CDC) and state and local immunization programs, these processes are cumbersome and expensive to manage. They do not allow for rapid responses to changes in vaccine supply and demand at the national, state or local levels and produce inconsistent levels of accountability at the individual provider level. With this in mind, the CDC proposes the Vaccine Management Business Improvement Project (VMBIP).

VMBIP represents the efforts of the CDC to improve current vaccine management processes. CDC is contracting with a national distributor (McKesson) to ship all publicly purchased vaccine directly to providers to consolidate inventories and reduce the number of times vaccine is handled during the delivery process.

The goals of VMBIP are to:

- Simplify processes for ordering, distributing, and managing vaccines, enabling a quicker, more effective response to public health crises related to disease outbreaks, vaccine shortages, and disruption of the vaccine supply.
- Implement a more efficient vaccine supply system that will result in the redirection of vital public health resources away from vaccine distribution and towards public health activities that will improve immunization coverage levels.
- Enable the direct delivery of vaccine to providers.

Centralized vaccine distribution through McKesson is expected to begin in Massachusetts in March 2008. MDPH is working with CDC on the transition plans. Providers can anticipate the following changes:

- All state-supplied vaccine orders will be centrally processed through the MDPH Vaccine Unit and shipped directly to your office from the distributor (similar to the current process for varicella vaccine).
- Providers will no longer be able to pick up vaccine locally.
- Providers will need to plan ahead when ordering, allowing time for delivery of vaccine, which could be 1-2 weeks.

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STD

Getting to Know Massachusetts Department of Public Health (MDPH) STD Field Staff

STD field staff, also known as Disease Intervention Specialists (DIS), are charged with working with health care providers and their patients to prevent the spread of sexually transmitted diseases (STDs) in Massachusetts. Altogether, the DIS staff have seventy-nine years of DIS experience. In 2006, they conducted 541 interviews with patients and were able to locate and refer 201 contacts in for medical care.

When priority STDs (i.e. - infectious syphilis, antibiotic resistant gonorrhea, LGV) are reported to the MDPH, the DIS staff conduct field activities to interview cases and ensure their sexual partners receive treatment. These efforts prevent both the reinfection of cases and the further spread of disease. They also provide education on STDs to a wide variety of audiences.

Below is a listing of the DIS staff, their contact information and brief bios. Health care providers are encouraged to contact the DIS staff for assistance in meeting the needs of their patients.

Central/Western Massachusetts & the Cape & Islands: *Pat Briggs, 413-794-3846, Patricia.Briggs@state.ma.us*

Pat is a nurse and has been a DIS for over thirty years. Her favorite part of the job is interacting with clients "no matter how the interaction goes." In her spare time she enjoys reading (all genres) and collecting old dolls.

Marla Early-Moss, 413-794-8365, Marla.Early-Moss@state.ma.us

With over twelve years of DIS experience, Marla finds satisfaction in working with adolescents and bringing patients into care. In her spare time, Marla is a videographer and a basketball referee. Marla has a son who is a National Junior Honor Society student and a daughter who is a future graduate from Tuskegee University, class of 2011.

Northeast Massachusetts:

Janice Bryant, 978-851-7261 x4036, Janice.Bryant@state.ma.us
Janice has been a DIS for sixteen years and she provides coverage for Essex County and northeastern Middlesex County.

Metro Boston

Rosita Graciani, 617-983-6958, Rosita.Graciani@state.ma.us
A DIS for over three years, Rosita speaks English and Spanish and finds satisfaction in her job when she receives a "thank you" from her clients. Rosita is an avid dancer (salsa, bachata, regatón) and is a proud, single mom of two beautiful daughters.

Jemima Talbot, 617-983-6835, Jemima.Talbot@state.ma.us
Jemima has been a DIS for two years and she prides herself on her ability to create trusting relationships with her clients. Jemima was a Peace Corps Volunteer in Bolivia, and she speaks English and Spanish. Her hobbies include photography and jewelry making.

Mark Thacker, 617-983-6955, Mark.Thacker@state.ma.us
Mark has 13 years experience as a DIS, and he likes his job because

he knows he is helping his clients and preventing them from developing complications from their infections. In his spare time, Mark likes fixing things (electronics,) home repair and painting.

State-wide Internet DIS Activities

David S. Novak, 617-983-6956, David.Novak@state.ma.us

With just over three years in his position, David is proud of the work he has done developing client-centered Internet policies and seeing how the Internet can impact disease intervention. David is skilled at Texas Two-Stepping and line dancing, and he enjoys going to the beach and walking World's End in Hingham.



MDPH Launches Adolescent Health Resource Website

In an effort to address the health needs of adolescents in Massachusetts, The Medical Foundation, supported by the Massachusetts Department of Public Health (MDPH) and the Massachusetts Department of Education, launched the www.URHealthStyle.com campaign in May, 2007. The primary purpose of this campaign is education of adolescents and referral to health care services in their area. Put simply, it is intended to be an online "yellow-pages" for inner-city minority youth who are seeking health care or want health information. The site is designed to be "user-friendly" to teens in its look, content and readability.

This campaign is an outgrowth of a partnership between the MDPH Division of STD Prevention, the Massachusetts Department of Education, and The Medical Foundation, Inc. With a focus on promoting school-based health centers and STD testing, it was recognized early on that the campaign should address the comprehensive health needs of adolescents.

The health care services listed on the site are agencies that are funded by the MDPH and/or the Massachusetts Department of Education. These agencies include school-based health centers, STD clinics, community health centers, family planning clinics, rape crisis services and HIV testing sites, among others.

The site explains how to schedule an appointment and what to expect during a health care visit. The site is designed to allow for visitors to post their comments and forward the URHealthStyle link to their friends. Other resources on the site include a listing

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Refugee and Immigrant Health

Malaria Screening of Refugees from Sub-Saharan Africa

Prevention of Lead Poisoning among Refugees

Approximately one year ago, the Refugee and Immigrant Health Program (RIHP) recommended universal screening for malaria for refugees from Sub-Saharan Africa as part of the initial refugee health assessment. The literature^{1,2} had documented a high prevalence of malaria among recent refugee arrivals from Africa. Among symptomatic cases, the triad of fever, splenomegaly, and thrombocytopenia were highly specific for malaria. Of note, however, a fairly high proportion of children with malaria were asymptomatic. In the report by Maroushek, *et al.*, 29% of those with malaria were asymptomatic. Because of the predominance of *Plasmodium falciparum* in most of Africa, individuals often develop partial immunity over time, thus reducing symptoms. This is not the case with forms of malaria that predominate in other parts of the world, in particular Southeast Asia.

Currently, the Division of Global Migration and Quarantine, Centers for Disease Control and Prevention (CDC) recommends empiric pre-departure treatment of U.S.-bound Sub-Saharan African refugees with Fansidar (pyrimethamine/sulfadoxine). Fansidar, however, is likely to be ineffective due to increasingly high rates of resistance to that drug in *P. falciparum*. Therefore, clinicians at clinics contracted by RIHP to conduct initial refugee health assessments incorporated microscopy of a peripheral blood smear as a core test for refugees from Sub-Saharan Africa in mid-2006. RIHP also encouraged clinicians to consider more aggressive testing of other refugee arrivals from countries with endemic malaria who exhibit symptoms suggestive of malaria, based on the Maroushek study, which found that no signs or symptom, either alone or in combination with another sign or symptom, was predictive of the presence or absence of malaria.

In reviewing data from approximately 10% of African arrivals in 2006, RIHP found only one positive smear in 78 tests (1.3%, see Table). The lone positive refugee was an adult from Sierra Leone. It may be concluded that either the screening process was poorly sensitive for detecting malaria parasitemia in this largely asymptomatic African population (with presumably low levels of parasitemia) or the asymptomatic parasitemia reported in other literature did not exist in this sample of refugees in Massachusetts. Because of these findings, RIHP has discontinued routine screening until more sensitive tests (rapid antigen tests or polymerase chain reaction) become available.

Table 1:

Malaria Smear Results from African Refugees in 2006

Region/Country of Origin	Malaria Smear Result	
	Positive	Negative
Central Africa	0	9
East Africa – Somalia	0	17
East Africa – Other	0	17
West Africa – Liberia	0	15
West Africa – Sierra Leone	1	10
West Africa – Other	0	9
Total	1	77

1 Maroushek SR, Aguilar EF, Stauffer W, Abd-Alla MD. Malaria among refugee children at arrival in the United States. *Pediatr Infect Dis J*. 2005;24:450-452.

2 Ndao M, Bandyayera E, Kokoskin E, Gyorkos TW, MacLean JD, Ward BJ. Comparison of blood smear, antigen detection, and nested-PCR methods for screening refugees from regions where malaria is endemic after a malaria outbreak in Quebec, Canada. *Journal of Clinical Microbiology*. 2004;42:2694-2700.

Lead poisoning and elevated blood lead levels continue to be a serious health problem facing refugee children. Across the country, initial health assessments, including those coordinated by the Refugee and Immigrant Health Program (RIHP), screen refugee children for lead poisoning. While many refugees arrive in the U.S. with elevated levels, a significant number of children acquire elevated blood lead levels after resettlement. RIHP has been collaborating with the Childhood Lead Poisoning Prevention Programs (CLPPP) of the Massachusetts Department of Public Health and the Centers for Disease Control and Prevention to organize and implement regional training workshops on the prevention of lead poisoning among refugee children. The workshops have been developed to bring together stakeholders who are involved with refugee resettlement, such as refugee health program staff and their networks of health assessment clinics, refugee resettlement agencies and community organizations serving refugees, with staff from the state CLPPPs and their networks of community agencies involved with lead outreach and prevention.

Organized in collaboration with the Coalition to End Childhood Lead Poisoning (CECLP), the first workshop was held in Worcester and attended by nearly 80 participants from all six New England states as well as New York. Dr. Paul Geltman, Medical Director of RIHP, presented a scientific and epidemiological overview of childhood lead poisoning among refugee children. Afterward, the participants were divided into two groups for breakout sessions. One session, led by Xanthi Scrimgeour of the MDPH CLPPP and Sarah Rudolf of CECLP, focused on developing community collaborations and how to gain access and utilize existing governmental and educational resources.

A second breakout session was facilitated by Dr. Geltman and Connie Thomas of the CDC CLPPP. This session focused on the use of peer-to-peer education, a lay health advisor model for conducting community outreach and education with refugees. The lay health advisor model had been implemented successfully for prevention of lead poisoning among Native American Tribes in Oklahoma. (Kegler MC, Malcoe LH. *Am J Public Health*. 2004;94:1730-1735.) The session also introduced participants to the use of the CDC's toolkit for training refugee agency staff and community members for the prevention of lead poisoning among refugee children. The toolkit is available online at www.cdc.gov/nceh/lead.

Under the auspices of the CDC, a second workshop for the Midwest region was held in collaboration with the Heartland Alliance for Human Needs and Human Rights in Chicago. The content and format of the workshop, while similar to that of Worcester, were shaped by feedback from the earlier session. Finally, based on positive feedback and requests received from individuals unable to participate in Worcester or Chicago, RIHP and the CLPPP are exploring an internet-based, distance-learning approach to extend the reach of the educational program. Further information regarding this project is available from RIHP.

TB

The Community Initiative for Tuberculosis Education (CITE) – Getting exCITED about TB prevention

In Massachusetts, the non-U.S.-born population remains the group at highest risk for tuberculosis (TB) disease. In 2006, 199 (77%) of TB cases occurred in persons born outside of the U.S and its territories. The Division of TB Prevention and Control (DTBPC) recognizes that greater effort should be made to test for and treat latent tuberculosis infection (LTBI) in these communities, if further progress toward TB elimination is to occur.

One step DTBPC has taken to address these needs, is to partner with several community groups and the Refugee and Immigrant Health Program to develop the *Community Initiative for Tuberculosis Education* (CITE). This two-year initiative aims to develop healthcare provider training tools and community-based educational materials that focus on the need for persons with LTBI to be referred, tested and treated. Two high-risk populations in Massachusetts are the focus.

Based on TB/LTBI rates, the Cambodian community in Lowell and the Haitian community in Cambridge were selected as target populations for this project. In Lowell, CITE's partner is the Lowell Community Health Center (which includes the Metta Health Center), and in Cambridge, it is the Cambridge Health Alliance, the Cambridge Department of Public Health and the Center for Community Health Education and Research (CCHER). These partners have the distinct advantage of being closely connected with the community, and of knowing the best and most culturally-appropriate methods to communicate health messages to their community. As a result, they play a central role in the implementation of CITE.

A major early step in the project is to conduct focus groups and key informant interviews with Haitians in Cambridge, Cambodians in Lowell and the healthcare providers who serve these respective communities, to assess knowledge, attitudes and practices around TB/LTBI. Based on these results, CITE will develop a provider-focused educational intervention (training curriculum, etc.) and community-focused/culturally-appropriate educational materials that can be incorporated into existing channels and at venues that providers and community groups are using to disseminate health educational messages to the community. Finally, once dissemination of these tools/materials has begun, the program will be evaluated to assess how well CITE fulfilled its objectives.

DTBPC believes that forging partnerships with community health providers and community groups is the cornerstone for building future TB elimination efforts. Hopefully, this approach will not only increase testing and treatment of LTBI in the Haitian and Cambodian communities, but ultimately decrease the overall TB case burden in the state as well. Now isn't that something to get exCITED about?

MA Department of Public Health
John M. Auerbach, Commissioner
Bureau of Communicable Disease Control
Alfred DeMaria, Jr., MD, Chief Medical Officer
Director, Bureau of Communicable Disease Control
State Epidemiologist

XDR TB

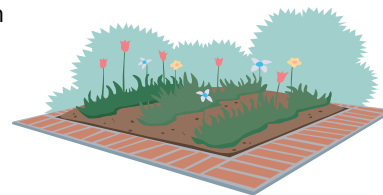
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Budget cuts at all levels of the public health infrastructure have resulted in the progressive loss of staff required to do this patient monitoring. A similar deterioration of the public health infrastructure fueled the resurgence of tuberculosis in the 1980's and early 90's

In the US, a Federal Task Force for XDR TB is in the process of developing an Action Plan that will address the root causes of this potential emergency and prevent it from becoming a greater problem worldwide. This will require additional resources to federal and state/local agencies to address specific issues, and a commitment from public health authorities to recognize the potential danger and the need to support an infrastructure to deal with it.

We must upgrade the public health infrastructure, educate the public about TB and educate providers to "Think TB" and treat patients accordingly, or we will experience another surge in the disease, but disease will be more deadly this time.

1. <http://www.who.int/mediacentre/news/notes/2006/np23/en/index.html>
2. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5611a3.htm>



SAVE THE DATE

Hepatitis C Support Project Training Workshop

Date: August 10, 2007
Time: 7:30am – 5:00pm
Location: Hoagland-Pincus Conference Center, Shrewsbury, MA
Registration: Information on how to register for this training will be forthcoming.

Program Description: This workshop is targeted to health educators, HIV/STD counselors & testers, medical providers, substance abuse counselors, case managers, support group leaders, patients and other health professionals who will provide education, support and advocacy for people and populations affected by hepatitis C. Registrants that complete and successfully pass this program will be certified as HCV Basic Educators by the Hepatitis C Support Project.

Additional Information

Massachusetts STD Treatment Guidelines Supported by CDC Advisory

In April 2007, the Centers for Disease Control and Prevention (CDC) announced updated treatment regimens for gonococcal infection and associated conditions. Data from the CDC's Gonococcal Isolate Surveillance Project (GISP) demonstrate that fluoroquinolone-resistant gonorrhea and is now widespread in the United States. As a consequence, this class of antibiotics is no longer recommended for the treatment of gonorrhea in the United States.

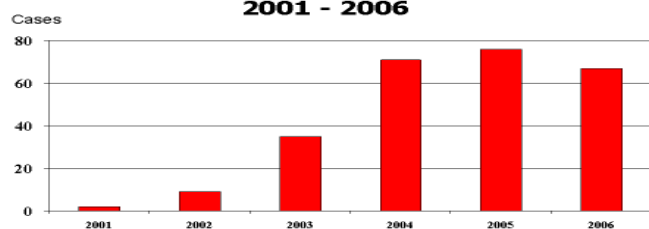
The CDC's announcement reinforces the recommendation made by the Massachusetts Department of Public Health in December 2002 that ceftriaxone (Rocephin®), 250 mg, IM is the preferred treatment of uncomplicated gonococcal infections. Ceftriaxone is effective against infection at all anatomical sites, and is safe to use during pregnancy and for adolescents.

Results from the Massachusetts Quinolone-Resistant *Neisseria gonorrhoea* (QRNG) Prevalence Project indicate that QRNG is still on the rise in Massachusetts. The project reported two QRNG cases in 2001 and sixty-seven cases in 2006. Among the 2006 cases, sixty-five of the cases were in men, and 84% of the men self-identified as bisexual or as a man who has sex with men.

To access the CDC gonorrhea treatment guidelines, go to <http://www.cdc.gov/std/treatment/2006/updated-regimens.htm>

For additional information contact Bill Dumas, RN, Director STD Clinical Services, at Bill.Dumas@state.ma.us.

**Quinolone Resistant Gonorrhea Cases
Massachusetts QRNG Prevalence Project
(% of organisms tested)
2001 - 2006**



* No case reported before 2001

Adolescent Health Website

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of local and national hotlines, and websites that may be of interest to teens, including those dealing with suicide prevention, drugs and alcohol and eating disorders.

The campaign is intended to be edgy, urban, and hip, while respecting the diversity of youth populations. The creative work was developed by a Boston-based non-profit group, Artists for Humanity, which employs youth to develop artwork and concepts to reach youth, especially minority youth living in urban

communities. For example, the "UR Healthstyle" theme is an outgrowth of the text-messaging youth culture that replaces "you are" with "UR" when text messaging.

Additional information and campaign collateral material can be obtained by contacting David Novak at David.Novak@state.ma.us.

VMBIP

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- Provider office staff will need to be trained on accepting shipments of vaccine, which includes opening the shipment immediately, ensuring that the cold chain has been maintained during shipment and properly storing the vaccine once it arrives.

It is important to note that state-supplied vaccine will continue to be provided free of charge and that there will not be any cost to providers associated with shipping.

MDPH will also be evaluating the impact of this transition on the role of the MDPH Regional Health Offices and local vaccine distributors. These offices play a critical role in the Department's emergency preparedness and pandemic influenza planning. In addition, Massachusetts purchases more influenza vaccine with state funds than any other state. Most of this vaccine is purchased through a state contract. It has not been determined if CDC will distribute this vaccine for Massachusetts or if we will need to maintain the current distribution system for influenza vaccine.

This is an introduction to some of the expected changes and unresolved issues. MDPH will engage stakeholders over the coming months to address issues related to the transition and will keep you well informed of the project progress.

If you have questions about VMBIP and its impact on you or your office, you can call the Vaccine Management Unit at (617) 983-6828 or toll-free at (888) 658-2850. You can also call one of the MDPH Regional Health Offices below.

Northeast Regional Office
Tewksbury (978) 851-7261
Central Regional Office
West Boylston (508) 792-7880
Southeast Regional Office
Taunton (508) 977-3709
Metro/Boston Regional Office
Jamaica Plain (617) 983-6860
Western Regional Office
Amherst (413) 545-6600

Adapted from the National Immunization Program Vaccine Management Business Improvement Plan webpage. Available at: <http://www.cdc.gov/nip/vmbip/default.htm>. Accessed on March 14, 2007.



You Be The Epi

Investigating Bat Exposures

It is the end of July. The Massachusetts Department of Public Health (MDPH) Division of Epidemiology and Immunization receives a call from a woman who reports that her 10 year-old daughter awoke to find a bat flying around the bedroom at a friend's sleep-over party. The daughter also reported that the friend's mother phoned the local police department, and the officer instructed the woman to open a window and let the bat fly out. There were three other girls and the family dog sleeping in the same bedroom.

She has the following questions:

Do bats in Massachusetts carry rabies?

Bat rabies is present in Massachusetts and rabid bats have been found in all parts of the state. In 2006, 4% (34/756) of the bats submitted to the Rabies Laboratory at the State Laboratory Institute (SLI) were positive.

Should She be concerned?

Yes. Even though a relatively small number of bats test positive for rabies each year, most of the recent human rabies cases in the United States were caused by bat strain rabies, and most of these individuals have a history of known exposure. If a human contracts rabies, it is always fatal.

Should her daughter get rabies post-exposure prophylaxis (PEP)?

Since rabies PEP administration carries the risk of some adverse reactions, the final decision about whether or not to administer treatment should always be made by the family physician in consultation with the patient. MDPH can provide information on the level of risk a certain type of exposure presents. Bats represent a particular risk because their bites and scratches may be very small and it may not be recognized that an exposure has actually occurred.

Post-exposure prophylaxis is recommended in any situation where a bat is physically present and a bite, or other exposure/contact, cannot be ruled out. In situations where there is a reasonable possibility that such contact occurred (e.g. a sleeping individual awakes to find a bat in the room, an adult witnesses a bat in the room with a previously unattended child, person of diminished competence, intoxicated individual, etc.), post-exposure prophylaxis is appropriate even in the absence of a demonstrable bite or scratch.

How many shots does that involve, over what period of time?

The rabies post-exposure prophylaxis schedule for previously unvaccinated individuals is:

- One dose of human rabies immune globulin (HRIG), 20 IU/kg of body weight given on day 0, intramuscularly (IM), in the gluteus muscle (buttock).
- Five doses of human rabies vaccine, one dose given on days 0, 3, 7, 14 and 28 IM in the deltoid muscle (upper arm).

Day 0 is the considered the first day of treatment.

Should the other girls at the sleep-over receive PEP?

As all of the little girls were sleeping in the room while the bat was flying around, exposure cannot be ruled out for any of them and rabies PEP is recommended. Their parents should be contacted, informed of the possible risk and advised to contact their children's physician to discuss treatment.

What about the dog?

Questions about rabies exposures and domestic animals, including cats, dogs, horses and livestock, should be addressed to the Bureau of Animal Health at the Massachusetts Department of Agricultural Resources. Their number is (617) 626-1794.

Is there some way that PEP could be avoided in the future?

Police and animal control officers that respond to calls about bats found in a home should not release the bat outdoors until human exposure can be safely ruled out. If an exposure cannot be ruled out, the bat should be captured and submitted to the SLI for rabies testing.

(Please note: The animal's brain is used for rabies testing. Therefore, every effort must be taken to avoid damage to the bat's head.)

Police and animal control officers should enlist the services of a veterinarian to assist with the euthanasia and submission of bats, and other wild animals, if rabies testing is necessary. The steps for safe bat capture should be reviewed with the police and the animal control officer. In addition, the epidemiologist may review these steps with the host of the party in the event that another bat is found in the house. These steps include:

1. Put on rubber or thick leather gloves.
2. Wait until the bat has landed, and then cover it with a coffee can. NOTE: Turning the lights ON in the room may encourage the bat to land.
3. Slide a piece of cardboard under the container. The cardboard should then be securely taped to the container to prevent the bat from escaping. Cut small holes in the cardboard to allow the bat to breathe.
4. Contact a veterinarian (or animal control officer if the bat is captured by a home owner) and arrange to have the bat euthanized and submitted for rabies testing.

Additional information:

Bats give birth to their young from May through July, and young bats are typically able to fly within three weeks of birth. Young bats, like young drivers, often end up in places where they do not belong. This is one reason why bats are more frequently found in houses during the summer months. Bats are small and able to crawl into very small spaces. They may enter a house through openings around roof edges, eaves, chimneys, through attic or roof vents, dormers and siding. The Division of Epidemiology and Immunization epidemiologist may advise the owner of the house to seal all holes, gaps or openings that are 0.25 x 1.5 inches or greater to help exclude bats from entering the house in the future.

For more information: <http://mass.gov/dph/topics/rabies.htm>